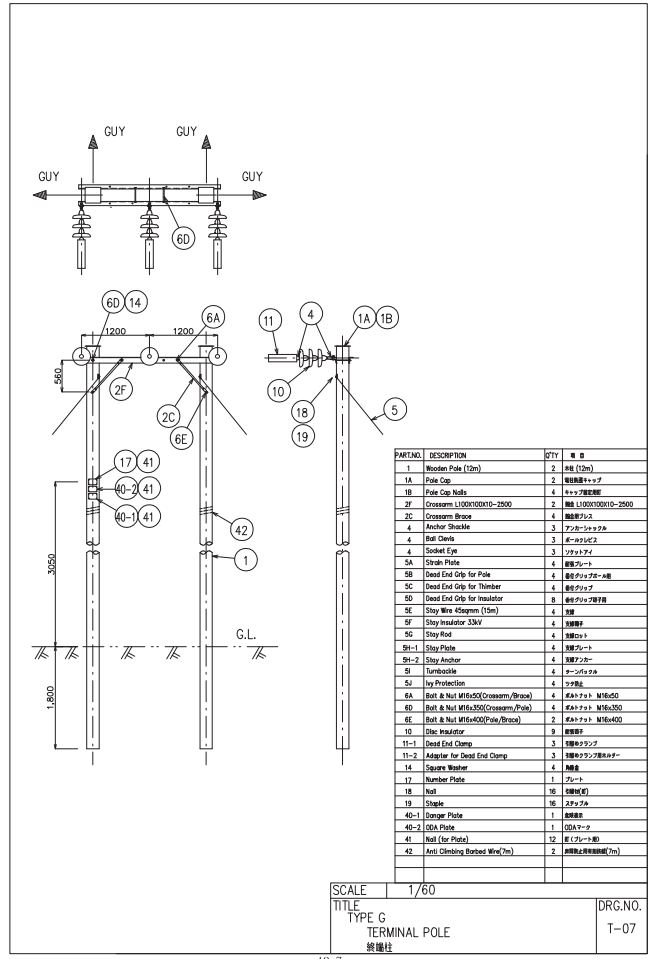
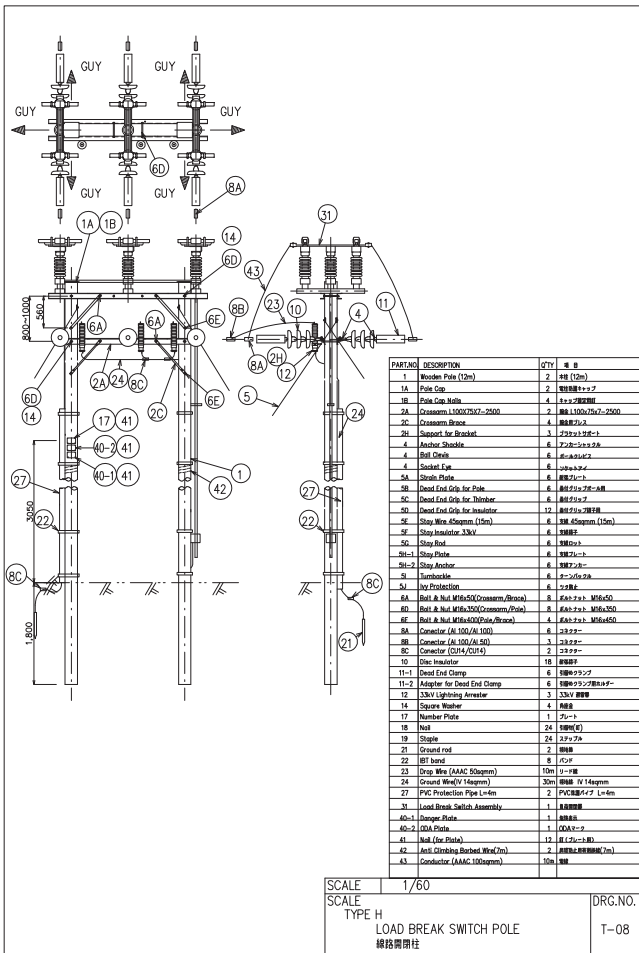


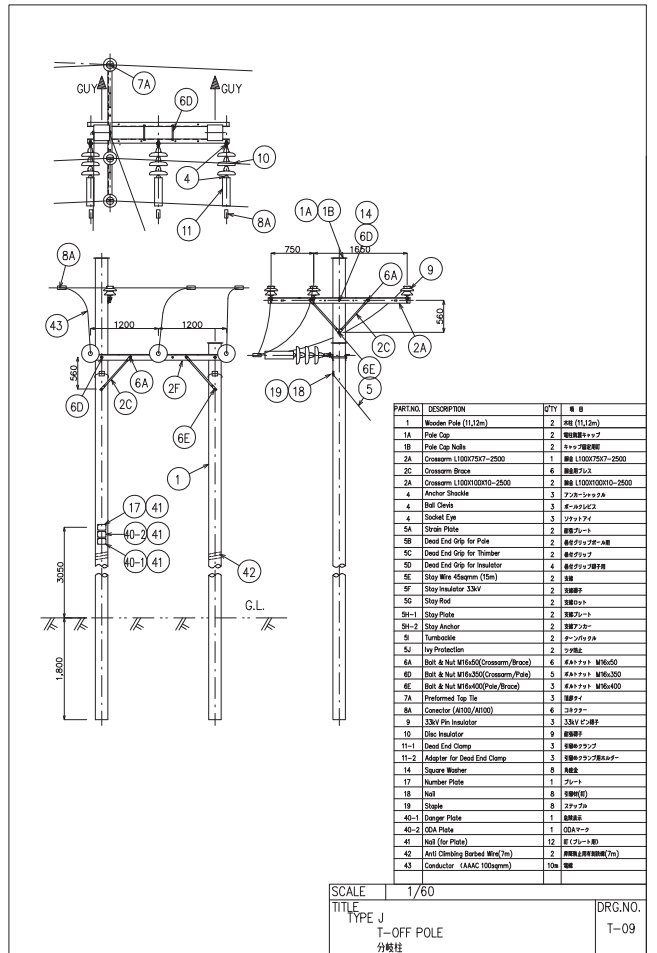
A2-5



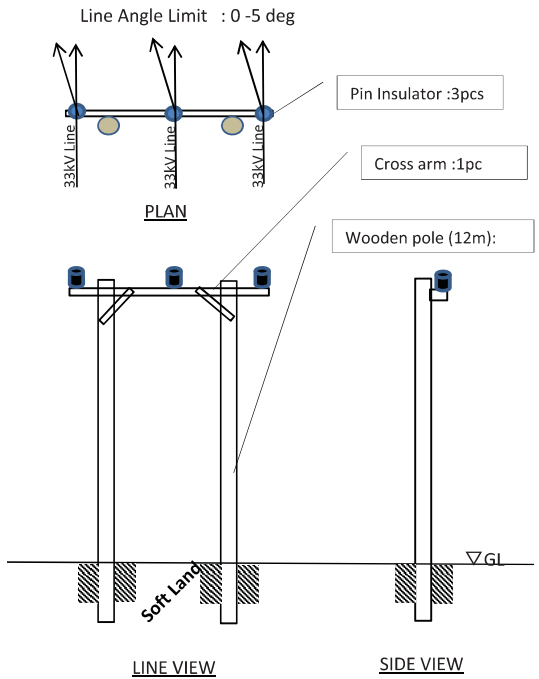
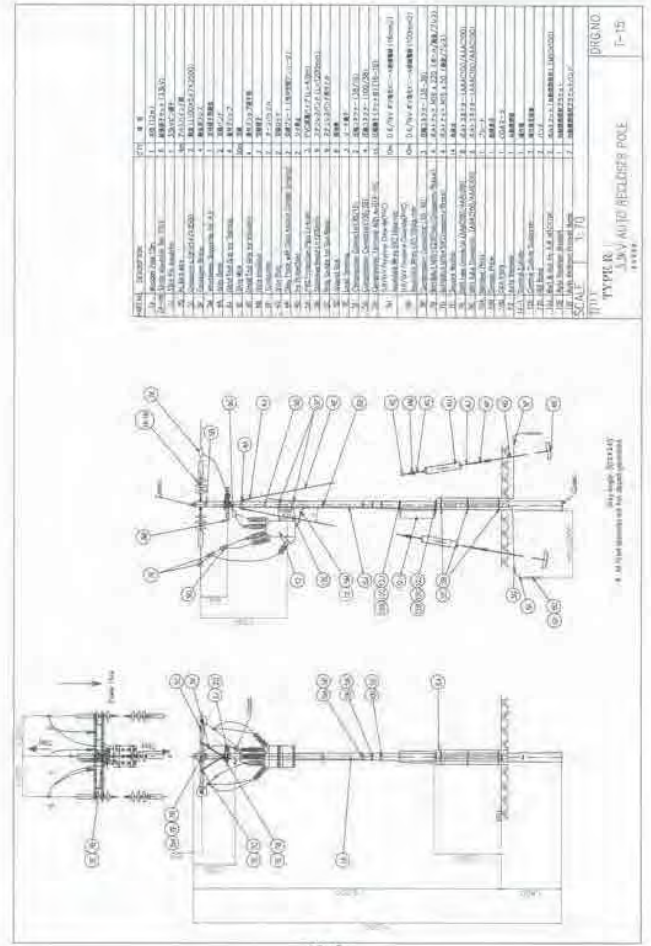
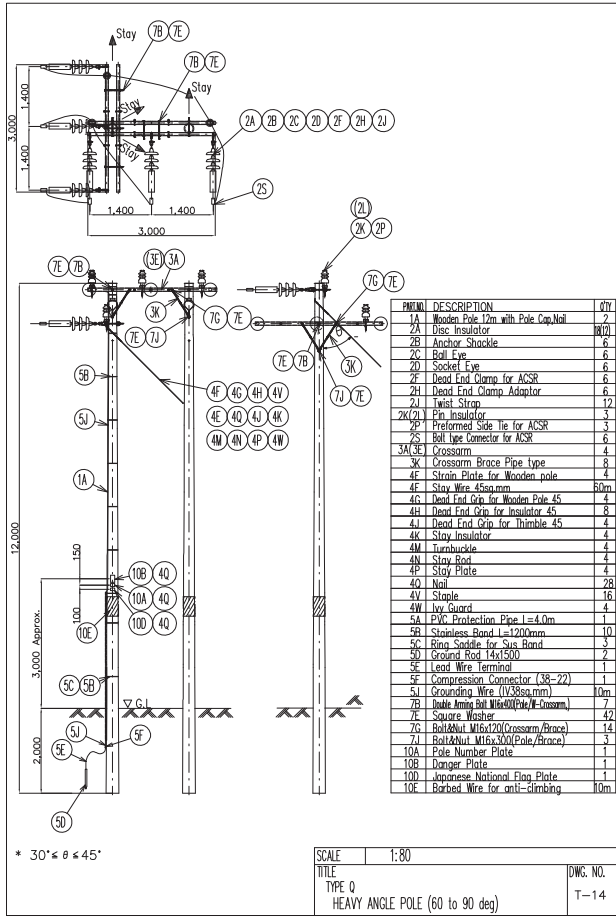
A2-7



A2-8



A2-9



Pole Type W
 DWG No. T-16 Intermediate Pole (area to be flooded)

A-8 モニタリングフォーム 及び環境チェックリスト

A8-1 モニタリング・フォーム案

Monitoring Forms

Monitoring Item: 1. Community meetings and consent building with local leadership - REA explains to the local leaders about the Project, schedule and establishes consensus before the installation work starts.						
No.	Date	Location (LCI/Sub-county)	Consent Level	Special Instructions (Questions & Answers, Opinions)	Frequency	
1					After E/N and agreement, Monthly by Community	
2						
3						
Monitoring Item: 2. Consent building with Project Affected Persons (PAPs) - REA explains to PAPs about the Project, schedule and establishes consensus before the installation work starts. (The consent forms of REA can be summarized.)						
No.	Date (from-to)	Location (LCI/Sub-county)	Consent Level	Special Instructions (Questions & Answers, Opinions)	Frequency	
1					Before the installation work starts, Monthly by Community	
2						
3						
Monitoring Item: 3. Loss of crops - The crops removed due to the installation works are recorded. (The compensation assessment forms of REA can be summarized.)						
No.	Date (from-to)	Location (LCI/Sub-county)	Type of Crops	Condition	Number of Crops	Frequency
1						Monthly by Sub-county
2						
3						
Monitoring Item: 4. Trees felled - The trees felled due to the installation works are recorded. (The compensation assessment forms of REA can be summarized.)						
No.	Date (from-to)	Location (LCI/Sub-county)	Type of Tree	Condition (height/age)	Number of Trees	Frequency
1						Monthly by Sub-county
2						
3						
Monitoring Item: 5. Payment of compensation - Payments of compensation for the crops and trees removed due to the installation works are recorded. (The payment vouchers of REA can be summarized.)						
No.	Date (from-to)	Location (LCI/Sub-county)	Number of Persons	Special Instructions (Questions & Answers, Opinions)	Frequency	
1					Monthly by Sub-county	
2						
3						
Monitoring Item: 6. Re-planted trees - Re-planted trees will be recorded.						
No.	Date (from-to)	Location (LCI/Sub-county)	Type of Tree	Condition (height/age)	Number of Trees	Frequency
1						Monthly by Sub-county
2						
3						

Monitoring Item: 7. Sensitization for safe use of electricity						
- REA explains and sensitizes the local people safety and hazards related to electricity usage before commissioning.						
No.	Date	Location (District/Sub-county)	Type of Media	Number of Participants	Special Instructions (Questions & Answers, Opinions)	Frequency
1						Before the operation starts, Monthly by District or Sub-county
2						
3						

A8-2 環境チェックリスト

Environmental Checklist: Power Transmission and Distribution Lines

Category	Environmental Item	Main Check Items	Yes:Y No:N	Confirmation of Environmental Considerations (Reasons for Yes/No, Mitigation Measures)
1. Permits and Explanation	(1) EIA and Environmental Permits	(a) Have EIA reports been already prepared in official process? (b) Have EIA reports been approved by authorities of the host country's government? (c) Have EIA reports been unconditionally approved? If conditions are imposed on the approval of EIA reports, are the conditions satisfied? (d) In addition to the above approvals, have other required environmental permits been obtained from the appropriate regulatory authorities of the host country's government?	Y	(a) According to the National Environment Act, Cap.153, which stipulates the types of projects subject to EIA, a full EIA was not required for the Project. Full EIAs were not required for the former REA's projects for installation of 33kV distribution lines. REA, the Project implementing agency, prepared A Project Brief (PB) explaining the project activities, baseline conditions, evaluation of environmental and social impacts and mitigation measures. REA submitted the PB to NEMA for review and approval of the Environmental aspects of the project and obtaining an Environmental Certificate for the Project.
			Y	(b) (c): The review process of the PB by NEMA and other lead agencies and relevant districts is going on. NEMA will give REA Environmental Certificate for the Project once the review is concluded and comments obtained. The certificate is expected by end of November, 2011.
				N
	(2) Explanation to Local Stakeholders	(a) Have contents of the project and the potential impacts been adequately explained to the Local stakeholders based on appropriate procedures, including information disclosure? Is understanding obtained from the Local stakeholders? (b) Have the comment from the stakeholders (such as local residents) been reflected to the project design?	Y	(a) REA held public consultations with the local leaders along the project routes and conducted two stakeholder's meetings at two sites. Explanations about the project and presentation of the likely environmental and social impacts and with mitigation measures were done. The comments are reflected as mitigation measures
	(3) Examination of Alternatives	(a) Have alternative plans of the project been examined with social and environmental considerations?	Y	(a): Three alternative project sites and the zero option (the case without the Project) were examined with four evaluation items, benefits to expected consumers and public facilities, urgency (scale of TC and social service facilities), social environment, and natural environment.
2. Pollution Control	(1) Water Quality	(a) Is there any possibility that soil runoff from the bare lands resulting from earthmoving activities, such as cutting and filling will cause water quality degradation in downstream water areas? If the water quality degradation is anticipated, are adequate measures considered?	N	(a): The installation of distribution lines will not involve any major alteration of the local topography or large-scale civil engineering work. Consequently, there will be no soil runoff to the extent of worsening the water quality.
3. Natural Environment	(1) Protected Areas	(a) Is the project site located in protected areas designated by the country's laws or international treaties and conventions? Is there	N	(a): The Project sites are not located in protected areas. One central forest reserve named Irimbi aimed to industrial plantation is

Category	Environmental Item	Main Check Items	Yes:Y No:N	Confirmation of Environmental Considerations (Reasons for Yes/No, Mitigation Measures)
		a possibility that the project will affect the protected areas?		located along the Project Route but it is partially planted and mostly cultivated with maize. REA will compensate owners if the trees or crops are removed for the Project.
	(2) Ecosystem	<p>(a) Does the project site encompass primeval forests, tropical rain forests, ecologically valuable habitats (e.g., coral reefs, mangroves, or tidal flats)?</p> <p>(b) Does the project site encompass the protected habitats of endangered species designated by the country's laws or international treaties and conventions?</p> <p>(c) If significant ecological impacts are anticipated, are adequate protection measures taken to reduce the impacts on the ecosystem?</p> <p>(d) Are adequate measures taken to prevent disruption of migration routes and habitat fragmentation of wildlife and livestock?</p> <p>(e) Is there any possibility that the project will cause the negative impacts, such as destruction of forest, poaching, desertification, reduction in wetland areas, and disturbance of ecosystem due to introduction of exotic (non-native invasive) species and pests? Are adequate measures for preventing such impacts considered?</p> <p>(f) In cases where the project site is located in undeveloped areas, is there any possibility that the new development will result in extensive loss of natural environments?</p>	N	(a)-(f): There are no special habitats of endangered fauna or flora. Seasonal and a few permanent wetlands that are highly modified and cultivated exist along the project area.
	(3) Topography and Geology	<p>(a) Is there any soft ground on the route of power transmission and distribution lines that may cause slope failures or landslides? Are adequate measures considered to prevent slope failures or landslides, where needed?</p> <p>(b) Is there any possibility that civil works, such as cutting and filling will cause slope failures or landslides? Are adequate measures considered to prevent slope failures or landslides?</p> <p>(c) Is there a possibility that soil runoff will result from cut and fill areas, waste soil disposal sites, and borrow sites? Are adequate measures taken to prevent soil runoff?</p>	N	(a)-(c): The Project site is almost gently hilly land. No major alterations of the local topography or large-scale civil engineering work will occur under the Project, making slope failures, landslides or soil runoff highly unlikely.
4. Social Environment	(1) Resettlement	<p>(a) Is involuntary resettlement caused by project implementation? If involuntary resettlement is caused, are efforts made to minimize the impacts caused by the resettlement?</p> <p>(b) Is adequate explanation on compensation and resettlement assistance given to affected people prior to resettlement?</p> <p>(c) Is the resettlement plan, including compensation with full replacement costs, restoration of livelihoods and living standards developed based on socioeconomic studies on resettlement?</p>	N	(a)-(j): No involuntary resettlement is expected in the Project. 33kV distribution lines will be installed within the road reserve along the present roads. Most buildings are built set-back from the carriageways and the lines will be installed to avoid the buildings.

Category	Environmental Item	Main Check Items	Yes:Y No:N	Confirmation of Environmental Considerations (Reasons for Yes/No, Mitigation Measures)
				project sites. However, some trees will be felled on the Project Route. The Project lines are designed and will be installed to avoid tall/large trees as much as possible. Trees felled by necessity are compensated by REA but it could deteriorate the vegetation and green landscape along the Project Route. Re-plantation at public space is proposed for mitigation.
	(5) Ethnic Minorities and Indigenous Peoples	(a) Are considerations given to reduce impacts on the culture and lifestyle of ethnic minorities and indigenous peoples? (b) Are all of the rights of ethnic minorities and indigenous peoples in relation to land and resources respected?	N	(a)(b): There are no settlements of ethnic minorities or indigenous peoples along the Project route.
	(6) Working Conditions	(a) Is the project proponent not violating any laws and ordinances associated with the working conditions of the country which the project proponent should observe in the project? (b) Are tangible safety considerations in place for individuals involved in the project, such as the installation of safety equipment which prevents industrial accidents, and management of hazardous materials? (c) Are intangible measures being planned and implemented for individuals involved in the project, such as the establishment of a safety and health program, and safety training (including traffic safety and public health) for workers etc.? (d) Are appropriate measures taken to ensure that security guards involved in the project not to violate safety of other individuals involved, or local residents?	N Y	(a): All Policies, Laws, Regulations and ordinances were reviewed and the project is within the acceptable limits (b)-(d): Supervising consultant and contractor take responsible to ensure safe working conditions in accordance with contractor's construction manuals which are required in the contract in order to prevent accidents at work and to the local residents during construction period. Personal protective wear will be provided for all the workers during construction according to the labour laws of Uganda.
5. Others	(1) Impacts During Construction	(a) Are adequate measures considered to reduce impacts during construction (e.g., noise, vibrations, turbid water, dust, exhaust gases, and wastes)? (b) If construction activities adversely affect the natural environment (ecosystem), are adequate measures considered to reduce impacts? (c) If construction activities adversely affect the social environment, are adequate measures considered to reduce impacts?	N	(a)-(c): The main work will be the erection of electric poles and overhead cables. While a small crane will be used to install trances on the poles, the work relating to the electric poles and overhead cables will be manually conducted. As such, the impacts of the work on the natural environment, social environment and pollution will be minimal.
	(2) Monitoring	(a) Does the proponent develop and implement monitoring program for the environmental items that are considered to have potential impacts? (b) What are the items, methods and frequencies of the monitoring program? (c) Does the proponent establish an adequate monitoring framework (organization, personnel, equipment, and adequate budget to sustain the monitoring framework)? (d) Are any regulatory requirements pertaining to the monitoring report system identified, such	Y Y	(a) As part of the environmental assessment process, an Environmental Management & Monitoring Plan was prepared in the Project Brief and implemented by REA. (b) The following items were agreed and will be included in the monitoring plan: Community meetings, Consent buildings with PAPs, Loss of crops, Trees Felled, Payment of compensation, Re-plantation of Trees and Sensitization. The other items including contractor's matters will also be comprised in the coordination with NEMA.

Category	Environmental Item	Main Check Items	Yes:Y No:N	Confirmation of Environmental Considerations (Reasons for Yes/No, Mitigation Measures)
		as the format and frequency of reports from the proponent to the regulatory authorities?	Y Y	(c) An organizational structure consists of the wayleaves officer, the environment officer and the auditor in REA. REA and Contractor shall make budgetary allocations towards all environmental programmes. (d) The environment officer of REA shall coordinate the production of internal monthly/quarterly reports for REA, and annual environmental audit report for submitting to NEMA.
6. Note	Reference to Checklist for Other Sectors	(a) Where necessary, pertinent items described in the Road checklist should also be checked (e.g., projects including installation of electric transmission lines and/or electric distribution facilities).	N	(a): The items are irrelevant to the project as it only involves the project components consist of liner and limited areas, which are installations of distribution lines and is planned within the road reserve.
	Note on Using Environmental Checklist	(a) If necessary, the impacts to transboundary or global issues should be confirmed, (e.g., the project includes factors that may cause problems, such as transboundary waste treatment, acid rain, destruction of the ozone layer, or global warming).	N	(a) The item is irrelevant to the Project as it only involves the project components consist of liner and limited areas, which are installations of distribution lines.